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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/092,139	03/06/2002	William D. Tandy	4333.1US (99-0257.1)	9714
24247	7590	08/02/2006		
TRASK BRITT P.O. BOX 2550 SALT LAKE CITY, UT 84110				
			EXAMINER CHANG, VICTOR S	
			ART UNIT 1771	PAPER NUMBER

DATE MAILED: 08/02/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/092,139

Applicant(s)

TANDY ET AL.

Examiner

Victor S. Chang

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 11 July 2006.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,3,4,6,8,9,11,12,14,16,17,19,20,22 and 24 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,3,4,6,8,9,11,12,14,16,17,19,20,22 and 24 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>8/25/2005, 6/19/06</u> . | 6) <input checked="" type="checkbox"/> Other: <u>IDS: 7/11/06</u> . |

DETAILED ACTION

Introduction

1. Applicants' amendments and remarks filed on 7/11/2006 have been entered. Claims 1, 6, 9, 14 and 17 have been amended. Claims 1, 3, 4, 6, 8, 9, 11, 12, 14, 16, 17, 19, 20, 22 and 24 are active.
2. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.
3. Applicants' request for signed copies of IDS filed after the final Office action is acknowledged. IDS filed on 8/25/2005 has been initialed, signed and attached to the present Office action.
4. Rejections not maintained are withdrawn.

Claim Objections

5. Claims 6, 12, 14 and 20 are objected to because of the following informalities:

In claims 6, 12, 14 and 20, the examiner suggests changing the term "the at least a portion" to --at least the portion--, so as to clarify the claim language. Appropriate correction is required.

Rejections Based on Prior Art

6. Claims 1, 3, 4, 6, 8, 9, 11, 12, 14, 16, 17, 19, 20, 22 and 24 are rejected under 35 U.S.C. 103(a) as being unpatentable over Weng et al. (US 5972234) in view of Ishiwata et al. (US 5300172), generally as set forth in section 6 of Office action mailed 4/14/2006.

Weng's invention relates to a tape for marking a wafer (semiconductor device). The marking tape forms an identification mark by the use of a high-intensity energy beam (column 2, lines 20-21), such as a laser (column 1, line 32). Weng teaches that any suitable tape of polymeric based material, which can be easily patterned by high-intensity energy beams such as ultraviolet light or laser, can be used (column 4, lines 27-33). The marking tape adheres to a substrate to be marked (column 2, line 64). A release layer (outer layer) may be provided to cover the adhesive layer for protection during the laser marking process (column 4, line 64 to column 5, line 2). Weng lacks a teaching that the adhesive layer comprises a mixture of electromagnetic radiation-curable components. However, Ishiwata's invention relates to a surface-protection method during etching. Through the use of a radiation-curable adhesive tape at the time of etching, a tape is stuck onto an adherend wafer, then the radiation-curable adhesive layer is irradiation cured before the etching treatment, the cured adhesive has much enhanced etching resistance by improving acid resistance to the etching liquid, and by lowering the water absorption (column 2, lines 49-57). It would have been obvious to one of ordinary skill in the art to modify Weng's adhesive layer with a radiation-curable adhesive layer, as taught by Ishiwata, motivated by the desire to obtain an enhanced etching resistance. As to the newly amended two "different" adhesive layers in claim 1 of instant invention, since both adhesive layers have the same recited compositions of "a mixture of electromagnetic radiation-curable components", and

the latest amended Fig. 5 (submitted 12/20/2004) also expressly shows that the two layers are of the same composition 1B, the term “different” appears to be merely a structural limitation, and Weng’s single-layer adhesive continues to read on the two different adhesive layers as claimed, because the recited two-layer structure still fails to preclude the single layer structure of Weng to read on both of the layers of instant invention. In other words, the upper and lower (different) portions of Weng’s single-layer read on the two different layers as recited, because the properties of one layer are not exclusive of the other.

Response to Argument

7. Applicants argue (Remarks, page 9) that the cited prior art fails to teach or suggest that generally the claimed tape or flexible film material has a coefficient of thermal expansion substantially similar to the semiconductor device; the second adhesive layer is different than the first outermost adhesive layer; and upon exposing to radiation, the second adhesive layer facilitates peeling of the flexible film when laser marking a semiconductor device. However, since Weng’s invention relates to an adhesive tape for the same use, i.e., marking a wafer (semiconductor), as the instant invention, it would have been an obvious selection of suitable materials to one of ordinary skill in the art, motivated by the desire to obtain these generally required properties of a marking tape suitable for a wafer marking process.

Applicants argue (Remarks, pages 9-10) that Weng does not teach a tape having multilayer adhesive, and the prior references are not combinable, because Ishiwata teaches forming a three dimensional network. However, the amended “different” adhesive layers claim 1 still fails to preclude the Weng’s invention, as set forth above. Further, Ishiwata’s “three-

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dimensional network” merely describes a cured or crosslinked network after curing the irradiation curable adhesive, which would have an inherent property of any curable resins.

Applicants’ argument that the combination is improper is unpersuasive.

Applicants argue (Remarks, pages 10-11) that to include radiation-curable components into any adhesive layer of Weng would render the invention inoperable, because applying any energy would cure the adhesive tape, which would prevent a pattern being formed through the tape. However, Applicants are reminded that Weng expressly teaches that the marking tape adheres to a substrate to be marked, and the tape is polymeric based material, which can be easily patterned by high-intensity energy beams such as ultraviolet light or laser, as set forth above. Applicants’ argument to the contrary of Weng’s express teaching is unpersuasive.

Applicants argue that Weng merely describes a photodecomposition process employing an excimer type laser for ablating the polymeric based tape, and Weng does not describe how an excimer laser affects the adhesive, any rejection based on Weng is based solely upon Applicants’ disclosure. However, even if Weng discloses a different marking technology, nonetheless the combined teachings of Weng and Ishiwata renders all the limitations of instant invention obvious, as set forth above, there is nothing from applicants’ specification be relied upon as basis of rejection. Applicants’ argument is not well taken.

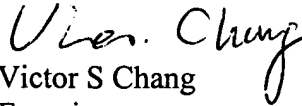
Conclusion

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Victor S. Chang whose telephone number is 571-272-1474. The examiner can normally be reached on 8:30 - 5:00.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Terrel H. Morris can be reached on 571-272-1478. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.


Victor S Chang
Examiner
Art Unit 1771

7/28/2006